IS 11933 (1987): 4B Plastic Pickers [TXD 14: Machinery for Fabric Manufacture]

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Indian Standard

SPECIFICATION FOR 4B PLASTIC PICKERS

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0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 31 March 1987, after the draft finalized by the Cotton Weaving Machinery Components Sectional Committee had been approved by the Textile Division Council.

0.2 As use of plastic pickers is progressively increasing, this standard forms a part of series of Indian Standards on pickers of various shapes and dimensions corresponding to different types of looms.

0.3 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard prescribes the requirements of 4B plastic pickers made from ultra-high molecular weight plastic polymer.

2. MATERIAL

2.1 Pickers

2.1.1 The polymer having mean molecular weight more than one million used for compression or injection moulding of pickers shall conform to the following requirements when tested by the methods given against each of them:

*Rules for rounding off numerical values (*revised*).

Requirement	*Value*	*Method of Test*
Density	0·94 g/cm³	IS : 8543 (Part 1/Sec 2)-1979*
Hardness Shore D	60 to 65	As agreed to between the buyer and the seller. *See* Appendix F of IS : 9766-1981† for information
Impact strength, *Min*	3 000 kg cm/cm	A-6 of IS : 2267-1972‡
Dimensional stability at	105°C	As agreed to between the buyer and the seller

NOTE — The shuttle strike area shall have shore hardness of 55 to 60 (on 'D' scale).

2.2 Bushes

2.2.1 The pickers may be provided with bushes made of fibre or nylon or any other material as agreed to between the buyer and the seller. The bushes may be threaded type or collar type.

3. WORKMANSHIP AND FINISH

3.1 The surface, edges, corners and slots shall be free from sharp and rough edges.

4. SHAPE AND DIMENSIONS

4.1 The shape and dimensions of pickers shall conform to the requirements of Fig. 1.

4.1.1 Spindle bore shall be $^{+0\cdot2}_{+0\cdot4}$ mm oversize as compared to the specified spindle diameter.

4.1.2 A tolerance of ± 2 percent shall be applicable to all dimensions against which tolerances have not been shown in Fig. 1.

5. MASS

5.1 The mass of the picker shall be as agreed to between the buyer and the seller. However, a tolerance of ± 4 percent shall be permissible.

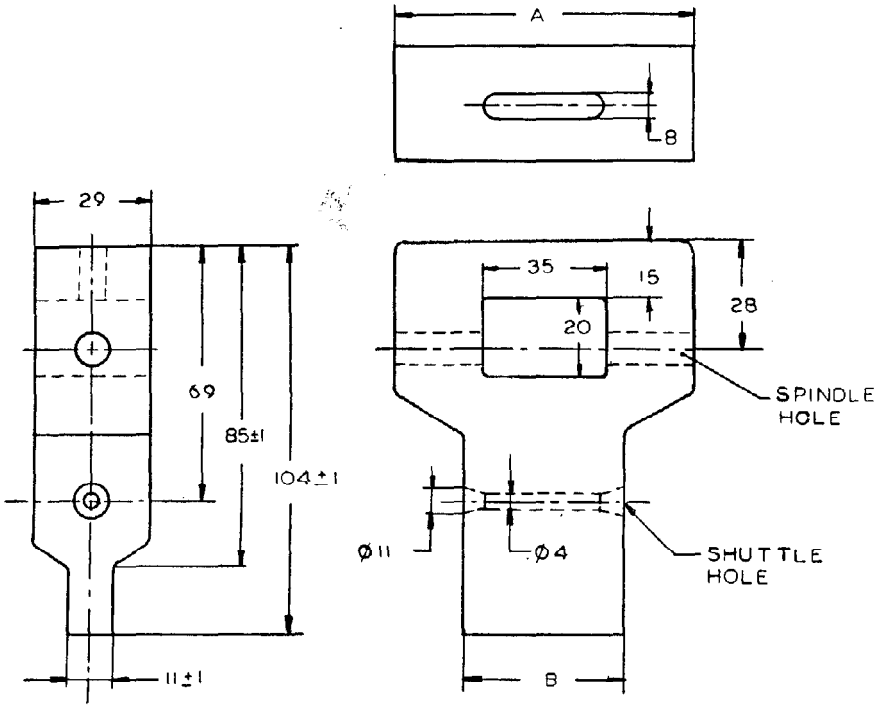
6. MARKING

6.1 Each picker shall be marked with manufacturer's name, initials or trade-mark.

*Methods of testing plastics: Part 1 Characterization of physical structure and size, Section 2 Determination of density of solid plastics.

†Specification for flexible PVC compounds.

‡Specification for polystyrene moulding materials (*first revision*).



	Regular	*Medium*	*Heavy Duty*
A	70	74	77
B	38	40	43

All dimensions in millimetres.

FIG. 1 4B PLASTIC PICKER

6.1.1 Each picker may also be marked with the Standard Mark.

NOTE — The use of the Standard Mark is governed by the provisions of the Bureau of Indian Standard Act, 1986 and the Rules and Regulations made thereunder. The Standard Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well defined system of inspection, testing and quality control which is devised and supervised by BIS and operated by the producer. Standard marked products are also continuously checked by BIS for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

INTERNATIONAL SYSTEM OF UNITS (SI UNITS)

Base Units

Quantity	*Unit*	*Symbol*
Length	metre	m
Mass	kilogram	kg
Time	second	s
Electric current	ampere	A
Thermodynamic temperature	kelvin	K
Luminous intensity	candela	cd
Amount of substance	mole	mol

Supplementary Units

Quantity	*Unit*	*Symbol*
Plane angle	radian	rad
Solid angle	steradian	sr

Derived Units

Quantity	*Unit*	*Symbol*	*Definition*
Force	newton	N	1 N = 1 kg,m/s^2
Energy	joule	J	1 J = 1 N.m
Power	watt	W	1 W = 1 J/s
Flux	weber	Wb	1 Wb = 1 V.s
Flux density	tesla	T	1 T = 1 Wb/m^2
Frequency	hertz	Hz	1 Hz = 1 c/s(s^{-1})
Electric conductance	siemens	S	1 S = 1 A/V
Electromotive force	volt	V	1 V = 1 W/A
Pressure, stress	pascal	Pa	1 Pa = 1 N/m^2